Notes on FCC NPRM Regarding Proposed Part 11 Rule Changes
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Para 34

No further specification for how CAP to SAME translation is needed beyond the ECIG Implementation Guide. This standardized translation ensures that CAP messages are uniformly transformed to SAME. Not achieving this uniformity could allow one CAP message about one event to be translated into multiple SAME alerts that are broadcast over the air. This could result in multiple EAS activations pertaining to one single event. If no audio is included, text to speech functionality creates the message audio based on the data included with the CAP message.

Para 35

Adoption of ECIG CAP-to-SAME translation protocol ought to be sufficient to ensure uniform translation.

Para 39

Message dissemination: Agree that participants should monitor multiple RSS alert sources for redundancy. I do not think that it is a good idea to have all participants monitor the entire United States' FEMA feed as it would cause traffic concerns and possible alert retrieval delays with many tens of thousands of broadcasters polling a server every few seconds. Ralph Brancato mentioned in his comment, dated 6/24/2011, the possibility of a Denial of Service (DoS) attack on alert servers. Every broadcaster in the nation continuously polling a server essentially creates a DoS situation. A possible solution would perhaps be to have a state/local aggregator that would poll the federal RSS feed and populate its own more localized feed with relevant alerts. Then, only this much smaller number of machines would be polling the national feed and broadcasters in the area covered by these state/local feeds could poll those feeds and traffic would be eased across the board.

I am also unclear on the comment that the entire CAP message would be contained within the FEMA RSS feed. Is this the true intention of what the FCC is saying or will the RSS feed contain links to individual CAP formatted XML files? Using RSS is a fine idea if implemented in the latter way and would not impose any limitations as mentioned (inclusion of audio, etc.) The former method may result in an enormous and cumbersome single XML file expected to contain every detail about every current alert. Not only would this result in a longer download duration every time the server is polled and more time to process the file during each polling but would also make it nearly impossible to debug in the event that any single alert's XML formatting is broken. In regard to concerns about message audio only being able to be included as a text link; CAP formatted messages are this way by design.

Timing intervals for polling the RSS should be specified rather than left to participants. The interval should consider both the traffic generated by broadcasters polling the server en masse too frequently as well as the potential for missing important alerts if the server is polled too infrequently.

Para 46

Intermediary devices. Such devices should be allowed to let participants meet their CAP requirements. Such devices perform CAP to SAME translation in the same manner that an integrated unit would; no data is lost and there are no obvious reasons not to allow them. Intermediary devices perhaps should not be subject to regulation as an EAS encoder but their use should require them to be installed upstream of a certified EAS encoder/decoder. If the device does not perform SAME decoding, it is unnecessary to subject them to 11.33 decoding requirements (although they should be subjected to CAP to SAME translation requirements, e.g. ECIG implementation guide). If CAP server monitoring requirements are added to 11.52 then the devices should be subject to such requirements.

Para 47

There is no reason that the new intermediary devices would be unable to be updated via software or firmware changes. If anything, these new devices may be more capable of being updated than some of the legacy equipment (which has proven in the past to be capable of being updated).

Such devices would certainly be a cost effective method of meeting CAP requirements for many participants. Discarding properly functioning EAS equipment in favor of new equipment that reproduces that EAS functionality (albeit, with the addition of CAP functionality) may not make good financial sense for many participants when they could alternatively keep that equipment in service and meet new requirements with the addition of an intermediary device. Tens of thousands of broadcasters suddenly discarding tens of thousands of electronic devices could also potentially have an enormously negative environmental impact.

Para 49

EAS encoders should not be required to be capable of encoding CAP formatted messages. The generation and dissemination of CAP emergency messages should be reserved for emergency coordinators. Unless each station will also be required to operate a CAP alert feed to be monitored by others over the internet, generated CAP messages would be useless as they are not intended for broadcast.

Para 52

Device inputs. Audio ports should be retained for receiving over the air alerts as well as CAP translated alerts from intermediary devices. Units with integrated CAP support should have an ethernet port to receive CAP alerts over the internet. Intermediary devices should also have such an ethernet port for the same reasons. Additional inputs may be optional for receiving alerts via other transport methods, accessing logging data, etc. The 1200 baud RS232 requirement should be removed.

An ethernet port would not allow CAP messages to be retrieved via dial-up. Given the amount of data required to be transmitted in polling a server every few seconds, receiving alerts, audio, etc. and reliability concerns, dial-up internet would not be a good solution. Additionally, the bandwidth allowed by a single ethernet port ought to be more than sufficient to allow the throughput for multiple alert sources.

Para 54

Integrated units (EAS encoder/decoders with CAP functionality) and intermediary units should be required to be able to translate CAP messages into SAME messages. One unit or the other should be required for participants.

Para 57

Logging. EAS message logging should continue as it is, including the logging of SAME messages which have been translated from CAP messages. An additional log for CAP activity (connectivity issues, relevant alerts received, alert translation status, etc.) could be a good idea.

Para 59

Agree with tentative conclusion that no additional revisions would be required with regard to CAP duplicate messages if it is required that devices perform CAP to SAME translation in compliance with ECIG.

Para 64

Yes, equipment deployment tables should be amended to include intermediary devices.

Para 85

Agree with FCC that crawls should be uniformly generated regardless of whether they are from SAME or CAP formatted EAS messages.

Para 94

Compliance certification. The IPAWS Conformity Assessment Program (ICAP) tests hardware and software for compliance with CAP v1.2, IPAWS Profile v1.0 and ECIG Implementation Guide to ensure that CAP formatted messages are correctly translated to SAME messages for broadcast. Sage's contention that an SDoC showing that equipment has passed ICAP be required is a good idea. Given the three sets of standards that ICAP ensures conformity to, further FCC testing should not be required.

Para 98

ECIG Implementation Guide has already been made a part of ICAP.

Para 110

CAP deadline. There are numerous good reasons to push back the September 30, 2011, deadline for broadcasters to become able to receive CAP messages. 2011 is nearly halfway over and the FEMA sponsored lab is only just now beginning to release results of its ICAP testing. Manufacturers not wishing to sell uncertified units will likely have been waiting for such certification before beginning full production of such devices. Participants have likely been waiting for ICAP results to be released before purchasing equipment to help them meet requirements.

CAP was designed with broadband internet access in mind. Whether by cable, DSL, satellite or other means, CAP relies on relatively high bandwidth to constantly monitor CAP servers, download alerts, download attached audio and other resources, etc. Such internet access is not universally available, perhaps particularly so in remote regions where citizens may rely more heavily on radio and television broadcasts to find out about emergencies. Requiring participants in these regions to be able to receive CAP messages before the infrastructure to do so is available does not make sense.

CAP messages come from CAP servers and are put there by CAP originators. Generally, those CAP servers and CAP originators are not yet in place. To require participants to be capable of receiving CAP alerts from non-existent sources also does not make much sense. Perhaps the availability of such alerts could be part of a trigger that starts a deadline clock for participant compliance.

There is still much to be determined with regard to CAP standards, regulation, implementation, etc. It is now July and this NPRM is just now being released, to be followed by a comment period, a reply period, rule making, and publishing in the Federal Register. As each of those milestones approaches and passes with requirements still up in the air, the September deadline is rapidly approaching.

Para 117

The Commission should specify that gubernatorial messages should be formatted and translated from CAP to SAME in the same manner as any other CAP EAS message would be.

Para 120

Agree with CSRIC suggestion of the addition of, at a minimum, a new originator code (e.g. GOV) to indicate a governor originated "must carry" message. It is unclear why additional event codes would be required for this functionality as the governor or his designees should only be creating alert messages which correspond to existing alerts. If it is deemed that the existing base of event codes is not comprehensive enough in scope to encompass all foreseeable emergency events then that base should be expanded for all functionality, not just for the governor's messages.

Without the addition of the new originator code, CAP-to-SAME conversion would strip the message of any indication of the "must carry" functionality as described in the technical specifications (CAP, IPAWS, ECIG), thus robbing the system of the redundancy intended in the first place. Stripped of that functionality, it can not be assured that broadcast messages will be carried by stations which may not receive the CAP alert (a likely scenario in an area struck by severe weather or other events which could knock out electricity or internet connectivity).

With regard to Monroe comment about legacy EAS equipment being unable to be upgraded with new originator codes, this is a non-issue as it has been done before in the past. The EAS has previously been successfully updated (after deployment) to modify the valid event or originator codes (e.g. the addition of AMBER alerts [CAE event code] or the removal of the EAN originator code). Modifying units to include the new GOV originator code and its associated must-carry functionality should not be a difficult task and should not require replacement of existing EAS equipment.

Para 121

The addition of new event codes would not affect the ECIG implementation as the range of acceptable event codes is any three character upper-case string of letters. The addition of an additional originator

code would be a simple matter of allowing messages with an ORG code other than EAS, CIV, WXR or PEP to pass through the message filters as a valid message.

Using the CIV originator code for (and only for) gubernatorial must-carry messages would not require modification of the technical specifications, only codification in Part 11 or approved State Plans. Modification of existing EAS units to implement this functionality should be easily achievable with software/firmware updates.

Para 124

A solution that seems to make sense is to require transmission of any CAP formatted message marked as a gubernatorial must-carry message and require forwarding of any received SAME message with a GOV originator code and a location code included in the broadcaster's listening area. This should ensure that all broadcasters in a given state (State A) will receive the gubernatorial CAP messages and transmit them in SAME format. Locations in adjacent states (State B) served by State A may receive the over-the-air SAME messages and forward them if their location is affected.

However, given that gubernatorial messages are being delegated to State Plans it seems that, perhaps, the issue of forwarding gubernatorial messages from adjacent states may be outside the scope of any Part 11 revision.

Para 143

Eliminating the EAT code might be a suitable option in a system which only uses SAME messages but could cause problems with CAP functionality. By sending a CAP formatted EAT alert, the alert originators could tell participants that the EAN activation is over. By eliminating it, it would force equipment to not only play the attached message audio associated with the alert (as is currently specified) but also continuously analyze it to look for the AFSK EOM tones. This would add another level of complexity to the equipment that is downloading and playing the audio over the internet.

Processing of EANs should be clarified and spelled out very clearly, both for SAME encoded messages as well as CAP formatted messages.

Para 180

I think that the answer to the Commission's question of whether removal of the Attention Signal might cause the public to ignore or distrust emergency alerts is "yes." Without the jarring Attention Signal preceding the alert information, the emergency message has a very good chance of blending in with the rest of the "noise" within the broadcast.